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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,404	01/14/2002	Bernard M. Werner	HI03027USU P02017US	2074

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EXAMINER

DABNEY, PHYLESHA LARVINIA

ART UNIT	PAPER NUMBER
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2646

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,404

Applicant(s)

WERNER, BERNARD M.

Examiner

Phylesha L. Dabney

Art Unit

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the interview conducted on 03 August 2005 in which claims 1-8 and 11-14 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Klayman (U.S. Patent No. 3,930,561).

Regarding claims 1, 5-6, 18-19, 21-22, and 27-28, Klayman teaches an acoustic waveguide, comprising: a first control curve; a second control curve; a third control curve; a fourth control curve; and a continuous three-dimensional least-energy-surface coincident with the first control curve, the second control curve, the third control curve and the fourth control curve that intersect a circular throat end and a non-elliptical closed control curve that defines a mouth.

Regarding claims 2, 20, and 23, Klayman teaches the continuous three-dimensional least-energy-surface is free of discontinuities (fig. 1; col. 2 line 59 through col. 3 line 24).

Regarding claims 3, 15, and 24, Klayman teaches the continuous three-dimensional surface further includes: a minimum surface area axial section plane of the continuous three-

Art Unit: 2646

dimensional surface formed from the first control curve, second control curve, third control curve, and fourth control curve (fig. 1; col. 2 line 44 through col. 3 line 24).

Regarding claims 4, 11, 16-17, and 25-26, Klayman teaches the minimum surface area axial section plane is at the circular throat end of the acoustic waveguide (figs. 1-2; col. 2 line 44 through col. 3 line 24).

Regarding claim 7, see the rejection of claim 1.

Regarding claim 8, see the rejection of claim 2.

Regarding claim 12, see the rejection of claims 1 and 2.

Regarding claim 13, see the rejection of claims 1, 3, and 11.

Regarding claim 14, see the rejection of claims 1 and 2 and figures 3-4 of Klayman.

Response to Arguments

Applicant's arguments filed have been fully considered but they are not persuasive.

With respect to the Applicant's arguments that the Klayman patent teaches a waveguide defined by a surface terminating at a mouth with a raised diffraction area, edge, or "lip" and which included sharp corners, instead of teaching any form of least-energy-surface. The examiner disagrees. In the Applicant's specification (page 9), it is stated that the acoustic waveguide surface, or "continuous three dimensional curved surface" is made from multiple pieces of materials that function as a continuous surface having minimal discontinuities. "Klayman teaches the radius at the midpoint of each side is 2.8 inches where as the radius as each corner is 1.7 inches which suggests that the corners of the Klayman reference are more inward relative to the sides, thus a smoothing effect at the corners. Furthermore, the claims require that

Art Unit: 2646

the surface intersects the circular throat and non-elliptical mouth. Klayman also satisfies this requirement since the surface in question lies between a circular throat and raised diffracted mouth. Therefore, the rejection is being maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L. Dabney whose telephone number is 571-272-7494. The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2646

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 21, 2005


PLD


SINH TRAN
SUPERVISORY PATENT EXAMINER